

## OIB - HU-25C Guardian 10/21/15 Science Report

**Aircraft:**

[HU-25A Guardian #525](#) ([See full schedule](#))

**Date:**

Wednesday, October 21, 2015

**Mission:**

OIB

**Mission Location:**

Kangerlussuaq, Greenland

**Mission Summary:**

Mission: Falcon Southwest Coastal C (priority: low)

This mission is one of three (with Falcon Southwest Coastal A and B), which together refly most of the ?Southwest Coastal A and B? missions flown in Spring 2015. These three flights work together in an interlaced (working upward from the coast) manner. This particular flight concentrates on the third and sixth lowermost of the coast-parallel lines, plus two additional lines covering a southwestern lobe of the ice sheet near Sukkertoppen.

Weather for this flight was almost ideal, with high pressure and weak outflow dominating the surface weather all over southwest Greenland. We did however encounter a very thin altostratus deck, beneath us, on the extreme southernmost of the coast-parallel lines. The ATM was able to punch through this deck for all but a few tens of seconds, here and there. The flat light on the surface created by the thin altostratus made real-time evaluation of the DMS imagery in that isolated area challenging. The rest of the mission was completely sky clear, and we estimate successful data collection for the mission to be better than 98% overall.

Local weather at Kangerlussuaq was again clear this morning, but even colder than yesterday. Ambient temperature at our 0630 weather briefing was -4 deg F, with a wind chill considerably below that. Length of day is getting quite short now. Today's takeoff occurred with the sun still well below the southeastern horizon, but with sufficient twilight illumination for good terrain visibility.

All instruments performed well.

We conducted a ramp pass at 5000' MSL just prior to landing.

Data volumes:

DMS: 15.7 Gb

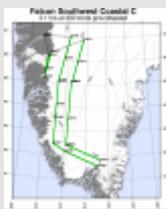
Narrow Swath ATM: 18 Gb

FLIR: 1.7 Gb

total data collection time: 3.2 hrs

**Images:**

### Map of Falcon - Southwest Coastal C



[Read more](#)

### Coastal southwest Greenland



[Read more](#)

## Moraines near Sukkertoppen



[Read more](#)

### Submitted by:

John Sonntag on 10/21/15

### Related Flight Report:

## HU-25C Guardian 10/21/15

### Flight Number:

OIB2015 Arctic Southwest Coastal C

### Payload Configuration:

ATM & DMS

### Nav Data Collected:

No

### Total Flight Time:

3.4 hours

### Submitted by:

Luci Crittenden on 10/21/15

### Flight Segments:

<b>From:</b>	BGSF	<b>To:</b>	BGSF
<b>Start:</b>	10/21/15 10:10 Z	<b>Finish:</b>	10/21/15 13:35 Z
<b>Flight Time:</b>	3.4 hours		
<b>Log Number:</b>	<a href="#">16F002</a>	<b>PI:</b>	John Woods
<b>Funding Source:</b>	Thomas Wagner - NASA - SMD - ESD Cryosphere & International Polar Year		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	OIB completed the Southwest Coastal C mission this morning and is now turning for an afternoon flight.		

### Flight Hour Summary:

	15F005	16F002
<b>Flight Hours Approved in SOFRS</b>	100	
<b>Flight Hours Previously Approved</b>		67.4
<b>Total Used</b>	32.6	65.3
<b>Total Remaining</b>		2.1

### 16F002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
<a href="#">10/05/15</a>	OIB2015 Arctic Sea Ice Central	Science	3.6	3.6	63.8
<a href="#">10/05/15</a>	OIB2015 Arctic Sea Ice East	Science	3.8	7.4	60
<a href="#">10/06/15</a>	OIB2015 Arctic Ice-Sat2 North	Science	4	11.4	56
<a href="#">10/07/15</a>	OIB2015 Arctic Transit Thule to Kangerlussuaq	Transit	2	13.4	54
<a href="#">10/08/15</a>	OIB2015 Arctic Southwest Coastal A	Science	3.8	17.2	50.2
<a href="#">10/08/15</a>	OIB2015 Arctic Thomas-Jakobshavn 01	Science	3.7	20.9	46.5
<a href="#">10/09/15</a>	OIB2015 Arctic Umanaq B	Science	3.9	24.8	42.6

<a href="#">10/13/15</a>	OIB2015 Arctic Jakobshavn Equip Store	Science	2.9	27.7	39.7
<a href="#">10/13/15</a>	OIB2015 Arctic Southeast Coastal A	Science	3.6	31.3	36.1
<a href="#">10/18/15</a>	OIB2015 Arctic Southeast Coastal B	Science	4.1	35.4	32
<a href="#">10/19/15</a>	OIB2015 Arctic Helheim-Kangerdlugussuaq	Science	3.7	39.1	28.3
<a href="#">10/19/15</a>	OIB2015 Arctic Helheim-Kangerdlugussuaq Gap B	Science	3.9	43	24.4
<a href="#">10/20/15</a>	OIB2015 Arctic Jakobshavn Mop-Up	Science	3.7	46.7	20.7
<a href="#">10/20/15</a>	OIB2015 Arctic Southwest Coastal B	Science	3.7	50.4	17
<a href="#">10/21/15</a>	OIB2015 Arctic Southwest Coastal C	Science	3.4	53.8	13.6
<a href="#">10/21/15</a>	OIB2015 Arctic K-EGIG-Summit	Science	3.7	57.5	9.9
<a href="#">10/22/15</a>	OIB2015 Arctic Mopup South	Science	2	59.5	7.9
<a href="#">10/22/15</a>	OIB2015 Arctic Ferry BGSF-CYYR	Ferry	2.2	61.7	5.7
<a href="#">10/23/15</a>	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	3.3	65	2.4
<a href="#">10/23/15</a>	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	0.3	65.3	2.1

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*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
<a href="#">09/15/15</a>	OIB #1	Check	2.7	2.7	97.3
<a href="#">09/20/15</a>	OIB #2, 3, 4	Ferry	2.7	5.4	94.6
<a href="#">09/21/15</a>	OIB #2, 3, 4	Ferry	2.3	7.7	92.3
<a href="#">09/21/15</a>	OIB #2, 3, 4	Ferry	2	9.7	90.3
<a href="#">09/23/15</a>	OIB2015 Arctic North Central Gap 02	Science	3.9	13.6	86.4
<a href="#">09/24/15</a>	OIB2015 Arctic Northwest Coastal A	Science	3.7	17.3	82.7
<a href="#">09/25/15</a>	OIB2015 Arctic Northwest Coastal B	Science	3.8	21.1	78.9
<a href="#">09/28/15</a>	OIB2015 Arctic Sea Ice West	Science	3.7	24.8	75.2
<a href="#">09/30/15</a>	OIB2015 Arctic North Central Gap 01	Science	3.9	28.7	71.3
<a href="#">09/30/15</a>	OIB2015 Arctic Zachariae-79N	Science	3.9	32.6	67.4